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Agriculture; Horticulture, Live Stock and Rural Economy.

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AGRICULTURAL PROSPERITY.

The importance of agricultural prosperity cannot be exaggerated when we connect it with the general prosperity of our country. Unless the Farmer flourishes, every other department of enterprise, manufactures and commerce will inevitably be depressed. So intimately are all the interests of other classes bound up in the success or failure of the Farmer's work, that their healthfulness depends upon that success or failure. Manufactures and commerce languish whenever a year of drought is experienced on the Farms. If these things would become flourishing the means must first be taken to secure a permanent character to agricultural prosperity.

Farmer's Intelligence the Source of Wealth.

It is one of the great truths which should be impressed upon all minds, that agricultural industry is the basis and source of all wealth. The real wealth comes from the ground and is the product of the intelligence of the Farmer, as he directs the

plough. The plough which moves without intelligence accomplishes but little in enhancing the country's greatness; but the plough, whose every movement is guided by intelligence to a deliberate and well defined purpose, is rounding out the life of our land as well as that of the Farmer who guides it.

In such a country as ours, perhaps no stronger argument could ever be brought forward for the mental and moral improvement of Farmers, than this great fact—that the character of our country depends almost exclusively upon them for the conservative strength which gives vigor at home and respect abroad.

Farmers the Basis of the Land's Stability.

At the present time, when the land is suffering from what we must consider the ill-advised and unfortunate position assumed by the laboring classes, we turn with more confidence than ever to the farming community to find some source of strength upon which our country may rely in its time of need. Were it not that the agriculturists are, after all, the strength

and support of the country, we might be tempted to believe that we were approaching anarchy, and that a complete disregard of all natural rights was about to be inaugurated. We are, however, upheld by the confidence we have in that great body of intelligent Farmers, who compose the body politic of the commonwealth, who are at the basis of our stability and who have too much at stake to permit the noisy rabble to interfere with the permanent advancement of our country. It may be intimated that the laborers, who have so disturbed all the relations of the manufacturing and commercial classes in our country, have no alliance with anarchial designs: and this may be very true in the abstract; but their disturbing influence has unfortunately been taken as the fit occasion for anarchists to attempt their work, and the principles are so nearly allied in theory, that they have not the ability to heal the wounds which the anarchists may inflict, or to quell the storm which anarchists may conjure up. We are forced to look to the agriculturists for the firm foothold needed to calm the storm and to speedily vindicate that justice—that sense of eternal right—which belongs to every individual and which makes up the guerdon of freedom in our country.

Farmers are Independent.

The Farmer is strong, because he is in a great measure independent, supplying himself and his family from the direct products of his soil, dependent only upon nature for what he eats and drinks, and slightly dependent for minor luxuries of food and apparel upon others. While independent himself, he makes every other class, rich or poor, idle or industrious, dependent upon him for not only the luxuries and comforts, but also for the prime necessities of existence. His broad acres, bringing with them the very idea of solidity, make the firm foundation upon which our country's future may rest, and, where the

liberty which comes from mutual forbearance and non-interference with the legal pursuits of each other, may be built up and preserved.

Farmers and the Government.

The necessity of cultivating the character of our Farmers, therefore, is among the first duties of our Government, and he is little fitted for a place among our law makers, who hesitates to throw around the agricultural class all the best inducements to their mental and moral culture. It is not a question whether our land is elevated by the education of the Farmers; that question has long ago been settled. Just in proportion as the farming community can be supplied with opportunities for culture, and can be induced to make use of those opportunities, will our land be elevated in the scale of enlightenment. No greater work more sure to result in the permanent welfare of our land can be conceived than that of our Government placing all educational advantages freely open to agriculturists.

The Government, too, can well afford this, because they are the ones who are paying into the Government so many millions of dollars in taxes on all the various commodities and condiments which their prosperity enables them to consume. Then, also, each intelligent worker adds much more to the general income than the ignorant tiller of the soil, because his own prosperity is greater, and his wants are commensurate with his products.

Agriculture a Grand Renovating Power.

In many of our large cities, humanity has become so dense that men and women jostle each other in the struggle for crumbs of bread to sustain life. It is in such districts and conditions that all the threatening influences originate, which cast clouds over the peace and welfare of the land. There, ignorance is rampant, and hunger turns even the naturally weak and law-abiding into incendiary savages.

Agriculture, if encouraged, built up, properly fostered, will soon be enabled to rectify all this, by giving these classes opportunities for healthy, moral life and an abundant supply of the most wholesome food. We must look to the Farmers as a grand resort for the salvation of our country, when no other resource is left us upon which we may depend.

OUR FOREIGN LETTER.

PARIS, June 1, 1886.

THE COW.

The practice is extending in France and Switzerland, to cut or castrate cows, so as to ensure after a certain age, for a definite period, a uniform yield of milk simultaneously with the putting up of juicy flesh for the butcher, to transform in a word the cow into a veritable milk and beef machine. M. Charlier is the great advocate of the new plan of *ovariotomy*, which is effected by a special instrument and is never attended with danger in the hands of a veterinary. The cow will be ill about eight or fourteen days after the operation. During this period the animal should be kept covered to guard against cold; and on half diet to avoid indigestion. On recovery the cow will be found less liable to diseases, since gestation and parturition have been rendered impossible.

M. Seippel, of Switzerland, has adopted ovariotomy or spaying, executed by the new instrument, since 1885, and with decided success. On twenty cows, he has had a daily yield of 10 and hopes to reach 12 quarts of markedly rich milk. But he has above all obtained a quality of meat, tender and succulent, which the butchers have reluctantly admitted to be equal to the best ox beef. To bring the cows up to the slaughtering standard he had to employ neither a special diet nor extra rations. The cut cows were ever in excellent condition. In ordinary cases, a cow after producing the usual number of calves, only produces beef of a poor quality, which is hard under the tooth, rebel in point of digestion, and devoid of nutritive power and all this despite their fat appearance. Ovariotomy should be practiced when the cow is 5 or 6 years of age; when she can

be kept on milking and simultaneously fattening, for eighteen months—and then sent to the butcher, with the certainty of proving remunerative.

THE HORSE.

The strength of a horse is in proportion to its health, and the latter depends on its food and stabling. Some cases of blood-poisoning have been reported, and, which are traceable to sudden change in diet and to the drinking of stagnant water. Some farmers conclude that so long as animal-refuse is kept out of the drinking-pond, no bad results can ensue. It should never be forgotten, all putrid matters are sources of disease. Insufficient air is a cause of sickness in horses, as in human beings. It has been estimated that an ordinary sized horse needs 130 cubic yards of air per day; but that it requires 33 cubic yards per hour, to get along comfortably in general stable-life. The aim then should be to induce a constant supply of fresh and to expel the vitiated air. A high, rather than low roofed stable, accomplishes that end best.

FEEDING.

In spring, stock have a natural longing for fresh food. Occasionally that desire may even be the symptom of disease; an indication of a morbid condition of the digestive organs. The change of diet will facilitate the falling-off of the old hair; develop transpiration; induce brilliancy of coat, and freedom in the intestines. Fresh forage has also the reputation of getting rid of cutaneous affections, and thus of purifying the blood. Old horses, accustomed to a dry and substantial dietary, do not benefit by a green bill of fare. Animals of a weak constitution, ought not to receive green forage.

From experiments tried on cavalry horses at Versailles, it was found that the green forage when coming into flower was the stage most propitious for consumption. A sharp eye ought to be kept to notice how the change operates on the animals subjected to green soiling. If laxity or weakness appear, the ration of oats should be at once augmented. Never, in the case of working horses diminish the oats when entering on the green feeding. It costs dearer to feed badly than to nourish well, and the latter system secures more health and strength—that which implies more profit on capital.

ENSILAGE.

We transfer to our columns from the *Southern Planter* the following articles as a resume of this subject treated in the last number. They will interest our readers, showing a glimpse of the originator of the silo, and giving facts of more than ordinary usefulness to those using this great discovery:

A VISIT TO AUGUSTE GOFFART, THE
INVENTOR OF THE SILO.

When I arrived in Paris I called on Minister McLane, and informed him that I visited France to buy Percheron horses. He gave me directions and then suggested that when I had finished my horse business I would find it worth while to visit M. Auguste Goffart, the inventor of the silo, whose farm is at Burtin, not far from the home of the Percherons. Now, I confess that our Minister knew more of silos than I did, for to tell the truth, I was ignorant of who invented the system that is in such world-wide favor. But I thanked the gentleman from Maryland, and one Saturday in October I was driven over a Sologne road of the Loiret plateau into Burtin. Woods alternating with hedged fields and orchards and rapid rivulets, watering green valleys, gave revelation of a rich agricultural country, healthy, beautiful and almost American-like.

I found M. Goffart in one of his fields superintending the trimming of a hedge by means of a machine. The driver of the diligence had pointed him out as we drove along the road, and I had been put down at the nearest stile that I might cross the meadow to reach him. I found him a short and heavy man, wearing a blue blouse, white breeches and a large straw hat, and carrying a cane. His greeting was polite, and as he listened to my errand an unmistakably proud look came into his face.

"I dare say my silos and my methods are old-fashioned to an American eye," he said, but added, "I am willing to do myself the honor of showing what I have."

He led the way toward his barns, remarking as we walked:

"I do not claim the honor of being an inventor. Necessity had long compelled the pitting of beets, turnip, cabbages and apple pomace, and I asked why maize could not be treated in the same way."

He did not scruple to speak of his early experiments, which were replete with abortions and partial failures, and which extended over a period nearly thirty years, until finally he learned that the key to success was to be found in the absolute exclusion of air and exterior moisture.

The silos are four in number and are well-worth seeing. They are built of brick and the sides and bottoms are made perfectly water-tight by the use of Portland cement. Below the ground the walls are two bricks thick, and one and one-half bricks thick above the surface. They are sunk below the surface 78 $\frac{1}{2}$ inches. The height of the walls above ground is 157 $\frac{1}{2}$ inches, making a total height from bottom to roof of 19 $\frac{3}{4}$ feet. The silos are planned elliptically, and are about 16 $\frac{1}{2}$ feet in width. A roof excludes rain and snow. The cost was \$834, but the figures of expense are not applicable in the United States, as for example it may be mentioned that the cost of reaping, carting, cutting and filling is only fifteen cents per ton of the ensilage.

The silos are twinned and tripled and all angles are avoided, the object being to offer the least possible resistance to the packing, and to have the size as large as possible. M. Goffart says, a large silo costs less per cubic contents than a small one, and that its percentage of preservation is greater.

I witnessed his feeding that night, and found it very instructive. The ensilage was brownish green, odorless and insipid, and was fed to about seventy head of milch cows and several steers. With every ten pounds of ensilage he mixes one pound of shorts; and the daily rations for each cow are thirty-three pounds. From one year's end to another maize is the herd's sole food, and they prefer the ensilaged to the fresh. The cost of feed per animal *per diem* is 3.3-5 cents for feed that costs but ninety cents per ton. W. H. M.

Silos.—I have five of these and propose to build or dig several more the coming summer. They are pits dug in the ground, sides a little sloping, in clay soil, and on,

or near the top of a hill, to avoid water rising from the bottom. The covers project over the sides several feet, and all loose earth is removed. Dimensions 16x8x8 gives one thousand daily rations for a cow, or rations for three cows one year. When should the corn be cut? I do not think the corn is ripe when fully silked and tasseled. It is then watery. I prefer to cut when it is going out of roasting or milk state, or becoming too hard for table use. At this stage, the stalk, ear and blade have about taken from the soil and atmosphere all they will get. I do not permit the corn to lie on the ground four or five days before using it in the silo, but cut it after the dew or rain has dried, draw it directly to the silo, pass it through the cutting machine, trample well during this process, put on boards and weights at night to cause as much packing as possible, until the silo is filled. Cover with chaff or straw a few inches, then with boards and weights. I find boxes filled with sand much more convenient than earth—the latter will fall into the ensilage when opened for use. I open the silo a few feet at a time and use to the bottom. This avoids the action of the atmosphere on that exposed, which in warm weather quickly wilts. The sand boxes are readily moved back, as the ensilage is taken out. I think sour ensilage is the result of corn being too young and watery when cut. A silo of the dimensions above will contain 50,000 lbs. of nutritious and digestible food. It can be raised from two acres of land in Virginia. Three pounds of ensilage are equal to two pounds of hay, deduct one-third and we have 32,000 lbs. of hay in value raised on two acres of land, or 16,000 lbs. per acre. The best grasslands of the Northwest or of the Valley of Virginia will not make 8 tons of hay per acre. Much of the land in East Virginia will produce it in ensilage-corn or corn-ensilage, equal in value, and more easily assimilated as food for all cattle and sheep.

Then, why the great difference in price of lands in East Virginia and those in which grass and hay grow? Green corn is *grass*, and the reason our people do not raise beef and sheep and supply the Southern markets with first-class butter, is that we are too slow to utilize the blessings God has bestowed.

JOHN WASHINGTON.

GOOD PROSPECT FOR ABUNDANT HARVEST IN KENT COUNTY.

Editor Maryland Farmer :

A drive through old Kent county at this time brings in view the pleasing sight of a promise of abundant harvest of grain and grass, and the loaded fruit trees are equally promising for a fine crop of fruit and the many young orchards coming in bearing this season with the old ones brings comfort to their owners and a smile to the steamboat men, who move this crop. Agents from the North are already in sight looking over the prospect and making arrangements with the railroads for transporting the fruit North and West.

Cheap fertilizers seem to be still in favor, and those costing \$15 to \$20 in some cases coming under my own observation seem to be ahead of others costing double the money. In one case a prominent farmer pointed out his wheat field, half sown with a fertilizer costing \$16, the other half costing \$35; and, to judge by the appearance the former will certainly serve a better purpose than the latter.

In many fields the obnoxious sorrel shows its red head much to the disgust of farmers, and some attribute it to acid in the soil, how they explain its growth out of a pile of lime I have not heard. The old story of lime, killing sorrel, is not worth repeating. The acid found in sorrel is oxalic and does not exist in any soil, but is a product of the plant formed out of air and water, the same as sugar, starch, oil, &c., and a dozen different acids may be produced from the same pot of earths.

It is the talk among many about the land becoming clover sick, and I have heard some say they will have to fall back on some other plant. My own experience is, that clover sick land is Timothy, Orchard Grass, Red Top, &c. sick land, for where clover will not grow there is a poor chance for any other. Sir John B. Lawes attributes the sickness to an absence of organic nitrogen, finding I suppose the inorganic nitrogen of no medical value in curing the sickness. Apply carbonaceous matter by turning under any green plant and organic nitrogen will be applied along with the carbon, of which all organized nitrogen must have in far larger quantities than the small supply of nitrogen found there. Or-

ganic nitrogen means a quarternary compound of four elements of which nitrogen fills a small space.

Great improvements are being made at the Coney Island of Maryland—Tolchester Beach. The popularity of this place can in a measure be traced to the absence of all intoxicating drinks, either on the boats of the Company or on the land, as by the force of our laws and public opinion, no public sale of whiskey is permitted.

Kent Co., Md.

A. P. SHARP.

SOUTH CAROLINA ROCK—KAINIT.

We copy the following letter from one of our exchanges. The writers are well known in this community as able and practical agriculturists:

"I am anxious to learn from some one who has tested the matter practically, whether I can get rid of paying for so large an amount of sulphuric acid as is used in treating the rock. I read some time since with great interest an article by Dr. Ellzey, on this subject, and also one by Prof. Goessmann, from which I inferred that this rock used with kainit was as effective as if treated with acid. If in addition to the opinions of these two eminent gentlemen, I can avail myself of the practical experiences of Mr. Crane, I shall feel that I am greatly benefited.

I quite agree with Mr. Crane that we cannot use ammoniated fertilizers without great loss. I discontinued their use long since to my great advantage. The great storehouse of nature contains nitrogen for enriching the soil, and, with the use of clover, we can obtain it abundantly and cheaply and in its most effective form. I know that clover is without a rival in improving poor soil, and when I can learn the cheapest method of making it grow, I shall see my way clear to more profitable farming.

New York.

WM. FULLERTON."

"ANSWER" BY MR. T. R. CRANE.

"I like Judge Fullerton, was much impressed with Dr. Ellzey's article on the use of floats or finely-pulverized South Carolina rock, and, for the purpose of testing its merits fully, I purchased two years since a number of tons as fine as dust

and used it broadcast on wheat, immediately after seeding. This land had been dressed with an application of dissolved rock and kainit at the time of seeding the wheat, and my object in applying the natural rock was with the view of finding out whether the crop would be increased by its application to a perceptible degree, and whether or not the succeeding crop of clover would show any improvement the following year. The rock in this instance was applied alone, without being mixed with kainit, and the result showed, that little if any, advantage was derived from its use. The wheat crop was not increased, nor is the clover upon the land any better than where the natural rock was not used. I used it in various ways, but up to the present time have seen nothing to encourage me in continuing its use. I have used it both without and with kainit, and the kainit alone; and from most careful observation am of the opinion that the only benefit derived immediately by the application of the combination was little, if any, greater than that evidenced from the application of the kainit alone, while on the same land the acid phosphate produced marked results. It is possible that the phosphoric acid contained in the rock, as it becomes soluble in the soil, will give evidence of causing increased fertility.

There are many who think sulphuric acid objectionable, and I am not prepared to say that it is not, but I do not think it produces sheep's sorrel or objectionable weeds. My farm has less sheep's sorrel on it than when I commenced the use of acid phosphate. It really has very little now, although it had little else than sorrel and obnoxious weeds all over it (where any vegetable growth existed outside of the woods) at the time I purchased it, and for two years thereafter, while I continued using ammoniated fertilizers. I was almost in despair of being able to change its condition. The third year I tried acid phosphate at half the cost of the fertilizers I had been using, and that season used six varieties, ranging in price from \$18 to \$36 per ton. The result proved that \$18 goods worth more intrinsically than that which cost \$36. The wheat crop that these several varieties were applied to, showed conclusively that the money I had spent for ammoniated fertilizer was all thrown away.

My first good 'set' of clover was obtained after having applied acid phosphate on the wheat in the fall.

My mode of application now is to sow 200 to 250 pounds broadcast, harrow and roll in advance of seeding the wheat. I have devised a contrivance to sow the fertilizer, harrow and roll at the same time. The harrow is then detached, a drill attachment placed in position, the wheat seeded, and 200 to 250 pounds more of the fertilizer applied broadcast.

I use from 400 to 500 pounds per acre, making two applications of equal quantity one immediately before and the other at the time of seeding. This I find produces better results than where the fertilizer is applied all at one time, or through drill hoes. The proportion of acid rock to kainit is 1,700 to 300 pounds (1,700 pounds of acidulated rock and 300 pounds of kainit, making the ton), a pure article not adulterated with gypsum, which is often done, and the purchaser gets almost exclusively sulphate of lime, in which case the result of its application is, of course, very unsatisfactory.

The plan I have adopted, which enables me to secure the best 'sets' of clover is to harrow the wheat, sow the clover seed and roll as early in the spring as the weather will permit. This should be done only when the land is dry enough to work without causing it to bake. I use the machine above referred to, with grass seed and harrow attachments. My fields are now well set in grass and to increase its growth, I have never used anything equal to an application of from 200 to 300 pounds of crude kainit per acre, sowed broadcast as early in the spring as possible."—*Country Gentleman*.

AQUATIC FARMING.

To hundreds in Maryland and Virginia, the opportunities for aquatic farming are great and magnificent. By aquatic farming we mean the systematic culture and capture of fish, sturgeon, oysters, crabs and other inhabitants of the waters; also of wild aquatic fowl and of tame water fowl on a broader scale, and, incidentally the culture of useful aquatic plants, such as the oosier willow. It is farming applied to a new field, a systematic life of labor upon the waters, *aqua-culture* not *agriculture*.

Whether or not the waters of a State are public property, free to all who may choose to farm them, the time has come when in the history of these two States, at least, it becomes the interest of the people at large to restrain indiscriminate gleaning of the waters and destruction of the aquatic food supply. And if the waters are State property, then they should be farmed to the advantage of the State. Or, if the waters belong to the adjoining lands, then those who own the lands should be protected in their right and all other comers should be restrained.

In either event there is need of legislation. We think the waters should be divided into farms like the land, to be held, worked and managed as private property, and that the owner of a water-farm should be under law and shielded by law, the same as the landowner. Then aqua-culture would become an occupation and a knowledge of this kind of farming would be written and talked about, and experimented upon, until it would be as well understood and as much systematized as land culture or stock-raising. You, Mr. Editor, would open your department of aquaculture for the workers in this special branch, and natural history of food fish and water fowl and all bearing upon the subject would have its special literature and experts.

There is need of this. There is more money in our Chesapeake waters than in the lands adjoining. What can be bred cheaper, or what sells higher than fish?

And even here there is room for the small farmer as well as the great. One may be an aquatic farmer in a small way upon his own lands. Every small stream that threads an estate can be made a water-farm on a small scale, and fish, water fowl and water plants may become resources of no mean importance.

A more thrifty and economic people would have long ago converted our incomparable water resources into mines of golden wealth. Our opportunities are magnificent. Shall we continue to neglect and abuse them forever? Nay, but give individual right to the waters and man's interest will then develop and enlarge this grand possibility.

Surry Co., Va.

B. W. J.

PARIS GREEN.

A correspondent asks what proportion of Paris green and water to use in applying for insects. That depends upon the quality of the Paris green. Some of the Paris green that is sold is disappointing in its results because it is not up to standard. If it is full strength Paris green, use an even tablespoonful to two gallons of water. It must be remembered that this makes a mixture and not a solution; hence it must be kept well stirred. It may be applied with a common sprinkler or fountain pump if it is to be used on trees. It is sometimes applied mixed with flour, but the better plan is to use the liquid, for it is more handy. Of course it is hardly necessary to say to anybody that care should be taken in handling this poison, but in this careless world we will give the caution. Used, as Paris green is generally used, there is no danger coming from eating the fruit or vegetable to which it is applied. Prof. Forbes applied it excessively in making certain experiments to apple trees. From one of the trees last sprayed in September, apples were picked a week after the operation, enclosed in a sack and subjected to a chemical analysis. It was found that it would take seventy-five apples to make a poisonous dose. It is concluded that a week of ordinary weather is sufficient to make the eating of fruit to which Paris green has been applied safe. But in such matters we advise great caution.—*Western Rural*.

Beet Sugar In California.

The manufacture of beet sugar at Alvarado, California, is being greatly increased. It has proved financially successful, both to the manufacturers and the farmers who raise the beets. The latter can net twenty dollars an acre profit in raising sugar beets. The climate there is such that the seed can be planted from March to May, inclusive, and harvesting goes on for five months, and the roots can be so easily and well kept that they can be worked up for four months after harvesting. The manufactory has now a capacity for working up eighty tons of beets a day, and they are about to erect an additional factory capable of treating at least two hundred tons of beets a day.—*Vick's Magazine*.

ARRANGING FLOWER BEDS.

An excellent flower for producing strong effects when used in masses, is *Salvia splendens*. It grows rapidly, becomes a symmetrical, compact mass of foliage and branches, and bears its long spikes of vivid flowers well in air. I have seen it planted among clumps of white perennial phlox with very satisfactory results. I remember a combination of it with wild white Clematis or Virgin's Bower that struck me as being most artistic. It was in a country garden where everything was planted in that haphazard fashion which often produces such pleasing effects. A plant of *Salvia* had been kept in the house through the winter. In spring it was turned out of its box, and planted in the corner of the fence. Some of the children had set a root of Clematis there. It sent up a dozen slender stems and found no support for them near at hand, and as the *Salvia* happened to be the only thing within reach, they made up their minds to use it as a means of getting up in the world and did so. The *Salvia* seemed determined to keep above them, but it had hard work to do it. They flung their branches about in such luxuriance that the plant was nearly hidden by them. When both came into bloom together, the effect was charming. Out of a tangled mass of vines, covered with feathery white flowers, rose the spikes of scarlet *Salvia*, brilliant as flame. An artist or a poet would have been delighted with the picture.

By a little study of colors and the habits of plants, one can select such kinds as will give the effect we desire to produce in most instances. It must be borne in mind that the successful gardener does not go to work in a "helter-skelter" fashion to produce striking effects. Nor are they the result of "inspiration." He goes to work intelligently; he knows what he wants to do, and he knows, also, what he must do it with and this he learns by observation. Study plants, if you would find out what can be done with them.—*Vick's Magazine*.

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DEER CREEK FARMERS' CLUB.

HOW OFTEN SHOULD LAND BE PLOWED
IN TEN YEARS?

The question discussed was: "How often may land be plowed with reference to present and prospective profit, in a series of ten years?"

W. D. Lee said his general system is to plow early in spring for corn; cut the corn as early as possible in the fall and seed the ground to wheat. After cutting the wheat the next year, he plows the land and sows wheat again, and gets the land in grass. The grass is allowed to remain as long as this rotation will permit. Plowing year after year deteriorates the soil, whereas it will improve under grass.

S. M. Lee said his plan is corn the first year, followed by wheat and clover. Let the clover remain two years and plow it under for wheat. Set it again in grass, which remains five years. Thus the land is plowed only three times in ten years. He thought the crop of clover turned down is of more value than fertilizers. He uses from one-fourth to one-half of the clover and plows down the remainder. He disapproved of putting wheat stubble in wheat, regarding it as a waste on most lands.

Wm. Webster's opinion was that there is more profit in letting land lie in grass and in grazing cattle than in plowing it. He thought three times in ten years often enough to plow up the entire farm. He would follow corn with wheat and grass and the fifth year go back again to corn. There is no risk of land deteriorating while in grass by washing of the soil or fertilizers. No enemy attacks grass and the only risk is in getting a good 'set.'

John Moores said his system was a seven years rotation. He tries to cover a sod with manure or straw and plows it down for corn. The same fall it is put in wheat. The second year part of it in wheat and the remainder in oats; then in wheat, with timothy and clover. It remains four years in grass and then goes in corn again. Under the system advocated by Mr. Lee, he had raised from twelve to fourteen bushels of wheat, now he gets thirty to thirty-five bushels and twelve to fourteen barrels of corn. Two fields are kept for permanent pasture, by feeding on them in winter.

R. Harris Archer thought that most of the land on Deer Creek would soon be covered with running briars unless plowed oftener than Mr. S. M. Lee proposed. He did not believe a crop of wheat could be raised by turning down clover alone.

H. Spalding's plan is to follow corn by wheat, plow the wheat stubble the following summer and set the land in grass; let it remain from three to five years before plowing for corn. It is of advantage to topdress sod for corn.

Edward P. Moores would divide his land into eight fields; plow for corn, follow that with wheat; put the field again in wheat and set in grass. Mow two years and pasture a year. Then cover the sod with barn-yard manure or straw and plow for corn again. Five crops of wheat might be grown without injury to the soil, except from washing, if fertilizers were liberally used and the land then set in grass.

James W. Hanna's rule is to plow every seven years. He has one field that is plowed every year and the oats now growing are as good as any he ever raised. It is fertilized heavily for every crop with bone and phosphate mixed. He likes to plow down a clover sod, now and then. As good corn as he ever had was from plowing a field on which the clover had been killed out. He attributed it to the clover roots, as no bone or manure was applied.

Thomas Lochary aims to plow once in every four years. He follows corn with wheat and grass, mows for two years and then puts the land in corn again. He seldom plows for wheat, but cultivates it in.

Harry Wilson liked Mr. Lochary's system, but can not adopt it always, as there is no certainty on his land of getting a 'set' of grass on corn ground. He did not think it of advantage to plow ground to get it in grass, but thought it better to let the field have its portion of rest.

Wm. Munnikhuyse said that having his farm tenanted his system compels him to plow every third year. All the manure made is hauled out on the field to be put in corn. The corn is followed by wheat, which is stubbled down again for wheat and grass. There are no crops on which manure pays better than corn and grass. A few years ago he and other members advocated spreading manure on grass a year or more before plowing it for corn. He had changed his opinion and now hauls

out manure and spreads as rapidly as it accumulates and finds the results quite as good.

Mr. Webster remarked that in his experience of thirty years, he did not recollect a failure of the corn crop. Mr. Munnikhuisen said wheat was the only crop he gets any money for, as he uses all his corn, whether much or little. He thought wheat pays as well or better than corn. Mr. S. M. Lee did not recollect a loss of the corn crop more than two or three times in fifty years.

Wm. F. Hays follows a rotation similar to Mr. Lochary's, except that he does not disturb a sod, as long as it is a good one. Always plows his worst sod for corn, follows corn with wheat, and grass seed and clover. Sometimes plows for wheat and sometimes cultivates it in. He looks to grass rather than to grain for profit. He nearly always harrows wheat ground for clover and seldom misses getting a stand.

James Lee has no regular rotation of farming, but would prefer something like S. M. Lee's plan. Instead of leaving clover two years he would leave it one year. After the first crop of wheat he would plow the ground. The largest crops of wheat he ever raised were from the same ground two years in succession—forty-one bushels the first and forty-two the second year.

B. H. Barnes said that in his system he covers a good stiff sod with barnyard manure for corn; plows the land again in the fall for wheat. Some land will not raise clover, but if cultivated often the soil will be made deeper, and clover can then be raised. Grass, when set, will also last longer. He begins after harvest to haul out manure on next year's corn ground and continues until done plowing. He can see no difference in the crop between that hauled out just after harvest and that hauled out immediately before planting.

R. John Rogers likes to have a good sod to plow down for corn, and prefers to put out the manure, particularly coarse manure, a year before planting. By so doing you get a good sod to turn down, which has a great deal to do with making a good crop of corn. The corn is followed by wheat and that, in turn, is stubbled down and put in wheat. He has good crops of wheat and rarely fails to get a good set of grass. Generally mows three years; then

topdresses again and puts the ground in corn. Pasturing appears to benefit the land and makes a better chance for corn than where the land is mowed and topdressed before plowing down the sod.

The next meeting of the club will be at the residence of Judge Watters, July 10th.

“CLOVER-SICK” LAND.

A correspondent says: “In cases with which I am familiar, one soil carries red clover, another carries white clover and a third carries alsike clover, year after year, while in each case the other clovers, if carried the first year, are lost the next. On my farms I have always great difficulty in getting red clovers to grow; if they do grow the first year they invariably die out before the second, while alsike clover grows luxuriantly, white clover and trefoil also standing pretty well. Sir John Lawes, I observe, ascribes the cause of clover sickness to want of organic nitrogen in the soil. The theory of high condition preventing this failure, is, no doubt, of some weight; but, that the soils, I refer, are too fairly well manured, is obvious, from the fact that the hay crop in an average season ranges from two to three tons per acre; yet that does not secure the crop desired. Now what is the cause of all this? Is it simply that the pure red clover is more delicate than the hybrid alsike, or is there some other cause for its failure?”

Our knowledge of all points affecting this question is still far from complete, but there is great reason to believe that where the soil is sufficiently rich, clover sickness does not exist. It has not appeared in the Rothamsted garden soil, although more than sixty crops of red clover have been taken in succession. At the same time, Sir John Lawes was unsuccessful in growing red clover, except at lengthened intervals, in the arable land at Rothamsted; while, on first sowing this biennial plant on a rich garden soil, it lived for six years and was cut fourteen times. After this the plant became more and more biennial; and although at the end of thirty odd years this garden land can still grow red clover it is said that the soil is becoming less competent to produce large crops.

Sir John ascribes what is called “clover sickness,” to the plant not having accu-

mulated a sufficient store of food in its roots during the first year of its growth. This, he explains, may happen from a variety of causes—such as the roots of previous crops taking some years to decay, and the want of sufficient alkaline salts in the subsoil. He lays particular stress on the fact that all our agricultural operations tend to accumulate the food of plants close to the surface of the soil, while it is only such soluble salts as chlorides and nitrates of soda and lime which pass quickly into the subsoil, and are carried away in the drainage water. He also points out the fact that deep-rooting plant like clover, feeding on lime, has little chance against a creeping-rooted plant like couch-grass, which feeds on silica, a far more abundant product in most soils.

It is to be remembered, however, that there are many forms of "clover sickness," and probably as many different causes. One form of it is due to a fungus, and "clover fungus" is more common than is generally supposed. Some German observers hold that "clover sickness" is due to parasites in the soil, but they have adduced no positive evidence of this. As, however, "beet sickness" has, in certain instances been traced to parasites in the soil, it is quite within the range of possibility the failure of clover may sometimes result from a similar cause.—*The London Agricultural Gazette*.

How We Spoil Our Lungs.

Houses are always filled with more or less dust. During the winter, when the ventilation is imperfect, this is especially the case. The stove is a most common cause as its heat dries up every bit of dirt in the room, and it is wafted about by currents of air, and stirred up by the skirts of women. Women probably do not know how much dust their skirts send into the air whenever they sweep over the carpet. It is invisible to the eye, except when the light of the sun shines on it. All this is breathed and helps to spoil our lungs. Is there any help for it? At least one—and that is ventilation. Frequent and thorough ventilation, especially when the rooms are swept and dusted, while it does not remedy the evil, makes it less.—*American Inventor*.

GERMAN MILLET.

German millet is an excellent fodder plant, highly relished by stock, nutritious, and with a slightly higher albuminoid ratio than timothy; hence is a better food for growing animals, or to be fed in connection with corn. It has a more open head than common millet and an abundance of leaves. In this latitude (fortieth parallel) German millet may be sown as late as July 1, but it is better, especially when it is to be cured for hay to sow it early in June. From three pecks to one bushel of seed per acre is the proper amount. The seed bed must be prepared with unusual carefulness, especially if the seed is sown in the hot, dry season. Roll the ground as fast as ploughed then harrow fine and sow the seed at once, covering with a plank drag. It is important to get a close stand, otherwise the millet will be coarse and inferior, and mixed with weeds. You are unfortunate, if a heavy rain comes soon after sowing, if the land is clayey, for a crust will be formed that the seed will hardly penetrate. The most favorable time for sowing is soon after a rain as the drag can be used for covering. This millet does best on loamy land, but on any soil of average fertility it will do well. If desired, it may be sown in May for pasture, but never until the nights, as well as the days, are warm. Cut before ripening, I prefer the height of bloom. Cut and cure the same as timothy or clover. It should be put in mows or barracks. Like clover, it does not keep well in a stack, and like clover, again, is injured by becoming wet while curing. German millet yields more and is of better quality than the common millet. While I think the millets are entitled to more favor than they have received, I would not advise their use as substitutes for the clovers, timothy or other perennial grasses. But on account of the quick growth of the millets, a crop of hay or a large amount of pasturage may be secured after an early crop on the land, or when it is seen that the meadows or pastures will be short.—*Planter and Stockman*.

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EDITORIAL BRIEFS.

PATIENCE.

Don't get out of patience with your horse. Speak to him gently. As soon as he understands what you wish him to do, he will try his best to do it. If you will be reasonable with him you will find him easily managed, and your work will be well done by him.

DESERVED PUNISHMENT.

We read accounts of the fact of fining a Farmer in England £2 and costs, for starving his cattle; and in another case a Farmer was given three months at hard labor for the same offense. If any case ever occurs where a punishment is deserved this is one. In this country we have societies to prevent cruelty to animals; but their labors are generally confined to cities and large towns. It is seldom we hear of any Farmer treating his cattle in this way; and our land is generally so well supplied with food for stock that starving them is an unheard of cruelty here.

GOING TO THE BARN.

Do not have your barn arranged so that you are forced to reach any one of its doors through a quagmire, either of manure or mud. We have had the experience of several visits to fine stock where the approaches were of this character. A very little labor will make a comfortable footpath, and after it is once made a single hour's attention a few times during the worst portions of the year, will keep it in perfect order. We do not expect a Farmer always to be shod with boots of immaculate cleanliness, but reasonable respect for the household should demand some regard for neatness when it can so easily be secured.

SICKNESS.

A very few simple remedies are all that are necessary for the ordinary ills of a family in the country. The garden will supply medicinal herbs and some few may be

found on every farm. For colds and the simple round of diseases of children little more is needed than good nursing, with some of the simple warm drinks from the garden herbs. But it is really important that when serious sickness comes there should be some physician to whom application could be made at once; and we advise every Farmer to select a physician within convenient distance of his home, to whom, if sudden necessity requires, his family may send with confidence of immediate attention. Speak to him and have some understanding.

The *Thoroughbred Stock Journal*, of Philadelphia, very kindly copied one of our "Editorial Briefs," called, "Kindness to Stock," but by some oversight neglected to credit it to MARYLAND FARMER. We do not object to the copying, brother, but please give us credit.

AGRICULTURAL ORGANIZATIONS.

The one word, "agriculture," comprises within itself a field so large, that we feel no other word is needed to set forth the motive which gives to us all the energy we now possess. We gladly take that in its fulness of meaning as our motto; and we shall now and always work for whatever will improve the condition of agriculture. This is indeed our highest ambition, and we do not allow anything to stand in the way of this. Each individual has his own methods of working for any loved and cherished cause; but we are broad enough to heartily sympathize with all methods which have for their object the benefit of the agriculturist. Any organization whose work benefits the whole farming interests, whether it be Knights of Labor, Granges, Alliances, or any other organization, we hope to see successful. At the same time we naturally prefer such organizations as will benefit the largest number. On this

account we heartily endorse those Farmers' Clubs which meet and discuss agricultural topics for the benefit of all, and are in no way of an exclusive character. It is beautifully in harmony with the genius of our institutions, and the fundamental ideas which underlie the principles of our Government, that these meetings should be *free to all*; none debarred from their benefit and enjoyment; no credentials necessary, except good behavior. We especially hail such organizations and extend to them gladly the right hand of fellowship; for they, more than any other, have in view the great good of our entire humanity, shutting none out, but heartily desirous of extending to every man who cultivates a single rod of ground the very best methods of work.

May such organizations be multiplied in every part of our country, and whatever other organizations now exist, or may hereafter exist, will be given God speed, just in proportion as we discover in them means of benefit to the great mass of Farmers.

INDIA WHEAT.

Mr. F. C. Stevens, the well-known breeder of Holsteins, of Attica, N. Y., has delivered an address before the Farmers of Batavia, N. Y., which we would be glad to give entire to our readers, did we have space for it in our columns. It is filled with many good points, and we may hereafter be able to extract a few very suggestive statistics on the subject of India wheat and its effect upon the prices in this country. We have referred to this subject in a previous number, but not as extensively, nor with the particular application given it by Mr. Stevens:

"The cause of the low price of wheat to-day is owing entirely to the English wheat interest in India, where this interest has within the past few years increased from comparatively nothing until the past

year when they have produced 286,000,000 bushels of wheat, showing an increase of 20,000,000 over 1884, while our crop for 1885 was 155,000,000 less than for 1884. It will be seen that India produced more than half as much wheat as we did. Their production will increase double the coming year what it did last, as the conditions in the past have been unfavorable owing to a want of railroad facilities. They have one mile of railroad for every 25,000 inhabitants, while we have one for every 500. Eight thousand miles of railroad are now under contract, and being built at an expense of \$150,000,000 to the government of England. The construction of these roads not only furnishes an outlet for the wheat now produced, but opens up an area of 83,000 square miles of culturable land, over 12,000,000 acres of which is adapted to the growth of wheat. This, you see, is something larger than our spring-growing area of the Northwest. When we take into consideration that the entire native population of India eat no wheat, that every bushel produced must find a market outside of the province, we then realize that every pound grown there means a pound less here.

Using the most primitive implements, which consist of a plow weighing from 12 to 18 pounds, with a point 4 inches wide. It in appearance resembles our ordinary pickaxe, the handle being the beam, one arm of the pick the plow, and the other the handle by which the scratcher is kept in an upright position. This is drawn by one bullock. The soil is only stirred, not turned. One of our improved harrows would accomplish the same result in a very much shorter time, for it has many teeth in place of the one. The ground is gone over about eight times in this way when it is considered to be in a fit condition to receive the seed, 100 to 140 pounds being used to the acre. The ground is then smoothed with a cold crusher, a very complicated machine, consisting of a billet or short piece of wood at the end of six feet of rope, which is drawn over the field once or twice by a bullock. The crop is then in. The last of October to the first of November as the seeding time, and the last of March or the first of April the harvest. The crop when ripe is cut with sickles, taken to a threshing floor, and after a few days exposure to the heat of the sun, is

threshed. Done of course in the most improved way, by allowing a drove of bullocks to pass over it. The grain is cleaned by exposing to the wind while pouring it from one basket to another. Even now, raising the wheat in this primitive way in India with the present price of labor there, which is from 6 to 7 cents per day, yet out of this they feed themselves and their families. (All the women earn the same wages as the men.)

The ignorant India farmer is the rival of the intelligent American husbandman. Wheat in India can be raised and sold at a profit for 35 to 45 cents per bushel. The ruot can afford to deliver his wheat, a day's journey from his home, for 50 cents. This being the case, what can the American farmer do? Can he deliver his wheat at the station for 50 cents? Certainly not. India wheat can be put down in New York city for 10 cents less than the market price of our own wheat to-day, and were it not for out protective tariff of 20 cents per bushel, it would be used."

A PLEASANT VISIT TO WINCHESTER AND VICINITY.

Editor Maryland Farmer :

A recent visit to my old boy-hood home revived many incidents that added pleasure to my visit. A sight of some of the old buildings revived the historical connections of them. The old stone building erected under the order of Gen. Morgan, still stands as a reminder of the Hessian prisoners, whom he had in charge. Some being stone-masons, they were employed when prisoners in erecting this building out of the stone which composes so much of the Shenandoah Valley. The General's old tombstone which was so familiar one-half century ago is still found there, but much defaced by relic hunters. An active movement is now on foot to have a monument erected over his remains, which have been removed to Mount Hebron Cemetery, a beautiful spot covered with fine monuments erected by the surviving friends of the dead. The bullet holes in some of the monuments with the leaden balls imbedded in the stone, bring to mind the deadly struggle that took place so often on these grounds during the struggle between the contending forces during the rebellion.

The old Shawne spring, a half mile off, still flows with its former force and purity, and how often it has quenched the thirst of the writer would be hard to tell. It flows from the limestone rocks pure as crystal, and the common saying among the people here is, "He, who has ever tasted this water will have to return for another drink," and it held good in this case. Half a mile further, the old Hollingsworth stone house stands in the same position and is still owned by my boyhood friends, and during the above mentioned struggle, several spots were pointed out where brave men on both sides met their death almost hand to hand. In this house the tables, bedsteads and other implements used by Friends, (Quakers), who were banished from Philadelphia, by order of Congress, in the early days of the revolution, being considered unloyal to their country, are still to be seen. The Hollingsworths being Quakers they were permitted to take charge of some, which saved the expense of keeping them in close confinement.

Three miles north of Winchester stands the same house where some of the other Friends were taken care of by the writer's great grandfather, and the orchard, alluded to in a letter several years ago, in your magazine, is still in bearing condition. This orchard was planted by the prisoners and is now one hundred and nine years old. Strange as it so happens, each of the farms is now owned by three heirs, in each case two maiden ladies and a bachelor brother. The owners of my great grandfather's farm are three favorite cousins of the writer, and direct descendents of those who bought the land of Lord Fairfax years before the separation from the mother country.

During my visit, I met some old boyhood schoolmates who had not seen or spoken to me for over forty-eight years, and when told who I was, was recognized, showing that old age has not been so hard on the outlines of the face. To this, I was glad to say much is due to pure water, instead of miserable whiskey. Whiskey had so much changed the appearance of some of those I met, that they could not be remembered by a single feature. Red noses, red faces, and poverty looks told the tale.

Great excitement is now going on towards suppressing this great evil of whiskey, and

I was pleased to learn there was not a shop in the large county of Frederick, outside the limits of Winchester, where liquor could be obtained, and judging from the talk of those I met—even among old drinkers—it will not be long before it will be excluded from Winchester by the voice of the people.

Talking with Mr. Baker, the owner of the large steam-mill in the town, I was informed that the wheat crop had largely increased in the county and now he was able to keep his mill going by a home supply of wheat, the flour being almost all sold to New York and Boston, and of its superior quality I can speak from the enjoyment of the fine bread and rolls made from it. Mr. Baker has introduced the rolling process in his milling operations.

Kent Co., Md.

A. P. SHARP.

POTATOES.

How shall the large crop be obtained? This is, after all, the most important question with regard to every crop, for it is very seldom that a small crop makes a profit or a large one a loss. If a farmer attempts anything, he should aim for the maximum yield. Then if the season or other conditions are unfavorable, the increase in price will make good any probable deficiency in product. Nobody ever knew 300 bushels of potatoes per acre grown at a loss, and this yield is possible wherever the conditions are favorable. In the first place, the soil should be a clover sod well manured in the fall before planting. If this has been done, the ploughing may be six or seven inches deep. Potato roots run deeper than corn and require, or at least allow, deeper ploughing. On this make a seed-bed at least four inches deep, so that the furrowing out can be done without disturbing the sod.

The Hay Tedder.

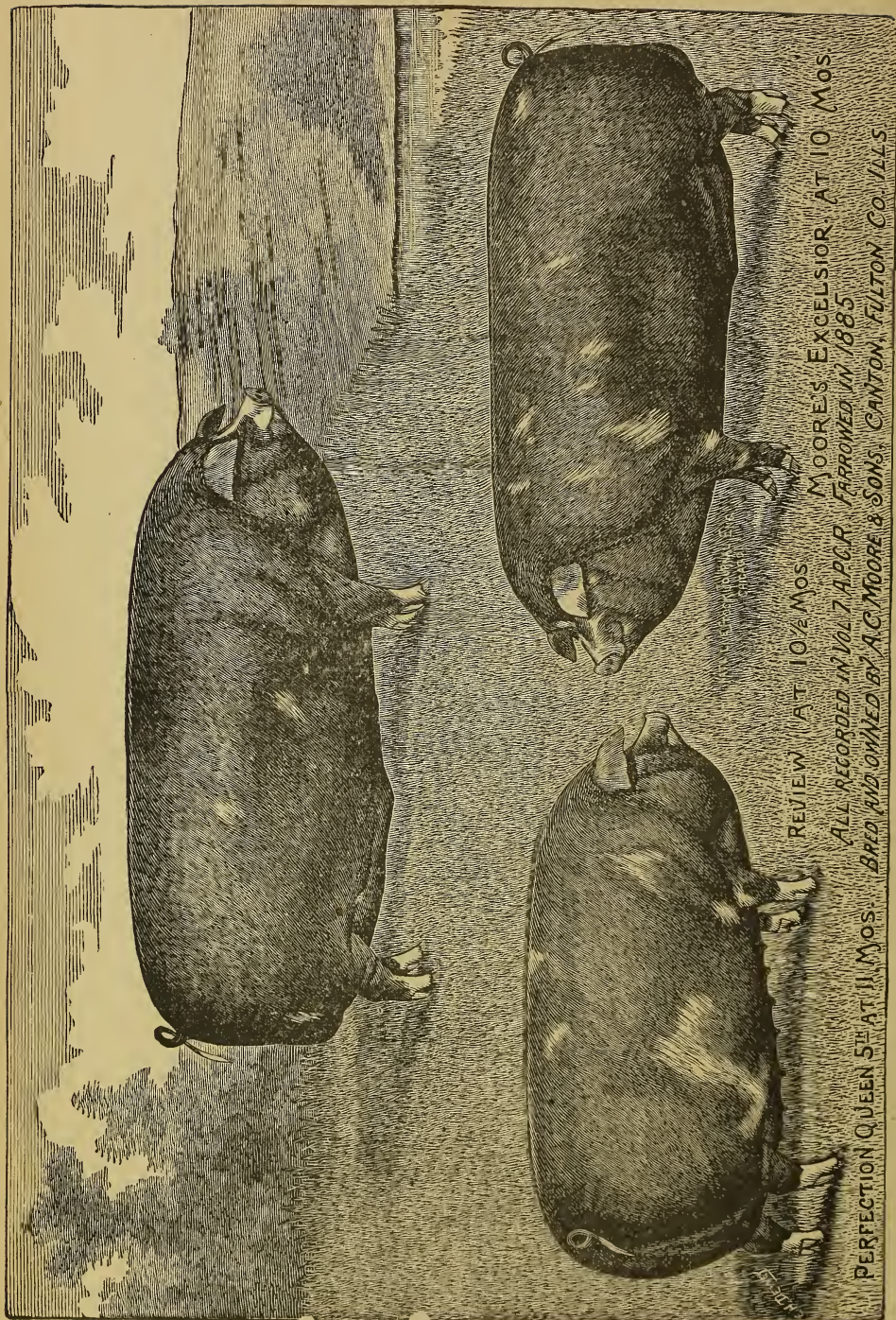
I have a great admiration for modern farm implements. The tedder is a wonderful invention. It will do ten men's work and do it much better than men would. It puts the hay in much better condition for 'getting in.' It is a great labor-saving implement—one of the very best.—C. S. Flint.

Give the Boys Tools.

Give the boy tools and let him find out for himself whether he has got any mechanical tastes or not. Do not discourage him as parents are apt to do, by saying: "Oh, it is no use for you to try to do anything with tools. I never had any taste that way and of course you have not." If a boy finds he can make a few articles with his hand it tends to make him rely upon himself. And the planning that is necessary for the execution of the work is a discipline and an education of great value to him. The future wellfare and happiness of a boy depends on the surroundings of his youth. When he arrives at that period in his life when he is obliged to choose what profession or what business to follow it is highly important that he should take no false step. And if in his youth he has cultivated a taste for any particular branch, the choice of a profession or business will be made more easy. We hope to see manual training in the public schools, for the hand, as well as the brain, should be taught, that they may both be of more use to each other.—*American Inventor.*

To Build A Cheap Silo.

Whatever cheapens the cost of the silo, or lessens the expense of filling it, will hasten the introduction of the method, especially upon the farms of those of moderate means. The important experiments on ensilage conducted at the Massachusetts Agricultural College, have shown that a balloon frame of scantling of suitable size, covered on the outside with matched boards, and lined on the inside with two thicknesses of one-inch matched boards, with a layer of tarred paper between them, thus securing a partially air-tight enclosure, surrounded by a dead air space as a protection against frost, is the best and cheapest form of construction. If the boards and timbers are saturated with hot coal-tar, which can readily be done with trifling expense and little labor, the duration of the silo will be very much increased. Silos are in these respects similar to ice-houses, their usefulness does not increase with the ratio of their cost.—*American Agriculturist.*



REVIEW AT 10½ MOS.

MOORE'S EXCELSIOR, AT 10 MOS.

ALL RECORDED IN VOL 7 APCR FARRROWED IN 1885

PERFECTION QUEEN 5TH AT 11 MOS. BRED AND OWNED BY A.C. MOORE & SONS, CANTON, FULTON CO. ILLS.

LIVE-STOCK REGISTER.

POLAND CHINA HOGS.

On the opposite page we present to our readers this month a group of Poland China Hogs, bred and owned by Messers A. C. Moore & Sons, of Canton, Ill. These gentlemen have been engaged in producing, perfecting and establishing this breed of hogs for the past forty years—having made the business a specialty, and their stock have a very deserved reputation for excellence of breeding.

DEHORNING CATTLE.

We have received a pamphlet by T. B. Terry, on the "Winter care of Horses and Cattle," which we have examined with a great deal of interest. In the 14th chapter we find the following on a subject we have heretofore mentioned in the MARYLAND FARMER. It is of such interest to all who have sentiments of humanity in this regard, that we cannot but wish attention called to it. We have generally felt it would be a blessing to discover some method of effectually preventing horns growing upon our cattle, and we very naturally, still prefer that it should be accomplished at the earliest period possible in their growth, as manifestly less painful to the animal than at any subsequent period. Still we are very glad to read the paragraph quoted below, and to feel that the dehorning of cattle is not in reality an inhuman operation:

"Some of the farmers in Illinois have lately been sawing off the horns of their grown-up animals. The Illinois Humane Society began suit against one of them for cruelty to animals, and it was generally supposed that they were brutal men, who ought to be punished. But the trial brought out some rather astonishing facts, and resulted in the acquittal of the accused, or, rather the testimony was so overwhelmingly on his side that the case was with-

drawn by the Humane Society. Mr. Haaf said he had dehorned thousands of cattle; he had dehorned hundreds of cows within a month of maternity; he had dehorned cattle when the temperature was 15 degrees below zero; he had two hundred dehorned animals on his place now, all enjoying life; he had never lost an animal, nor saw one sick from the effects of his treatment. Mr. H. had bones in court, and showed that the veterinarians were all wrong—that the seat of pain was not in the horn, but in the central sinus of the head. He exhibited the horn of a bull that had been a man-killer with his horns on; after they were cut off, a thirteen-year-old boy led the bull home. He said the reason he sawed the horns off his cattle was, that the strong ones drove the weak ones out of the sheds, away from the feed. In a given amount of shed-room he could keep twice as many dehorned cattle as of those with horns. Twenty or thirty witnesses, most of whom had dehorned cattle of their own, and were familiar with its effects and results, were all emphatically in favor of the practice, and were certain the pain was far less than from castration, and the results less serious. Many of them declared it less painful than branding. One, Mr. W. P. Taber, owned a savage bull, a man-killer, he dehorned him and a boy leads him by the ear. All agreed that it saved food, stable-room, injury to other animals, and to man. R. J. Withers, V. S., founder of the Illinois State Veterinary College, and others, said that the operation was comparatively painless, and very beneficial."

VEAL.

There is no kind of meat more deceptive than that which comes under the head of veal. As a help in selecting veal for family use, and for general information, we copy the following from the New York *Market Journal*:

LIVE AND NET WEIGHT.

The average weight of good, live mercantile calves in this city is at least 130 pounds—anything under 120 pounds is considered rubbish. Any calf, weighing alive, less than 100 pounds, is considered as a "bob." A good calf, weighing from

130 to 150 pounds, should dress about 70 per cent. net weight with the skin. A good 200-pound veal calf will dress, with the skin, 75 per cent. net weight. Such points as these a good butcher will remember.

WHAT IS "BOB" VEAL?

Formerly there were no legal restrictions on the sale of "bob" veal as food in New York, but when the board of health was organized some fifteen or eighteen years ago, the commissioners under the presidency of Jackson S. Shultz, sent for a number of the oldest and best known butchers in the city to obtain their views upon the question as affecting the public health. Among others who gave their opinions at that time as to what should be a suitable rating for healthy veal, were Thomas Broadway, John Harris, Lem. Valentine, Aaron Frank and others. On their opinions and judgment it was decided that all calves offered for sale should be at least four weeks old and should weigh not less than sixty pounds net meat when dressed, with the skin on. This law is still in existence. Calves under this age or weight rate as "bob," and are subject to confiscation by the health authorities.

[If this is a good law for New York, would it not be a good law for Baltimore?]

A WELL-DEVELOPED SIRE.

A correspondent of the London *Live-Stock Journal*, Mr. Geo. Boudass, notes examples and gives his ideas of a sire that may be depended on, to always get good stock. He says, for a good sire you must have a horse with plenty of well-developed muscle all over the body, and the more regular and even it is, the more regular and even will his stock come. He adds: "The breeding of sheep and horses has always been a hobby of mine, as it was of my father's, and I have made a special study of the means to be adopted to prevent disease. I believe it is essentially necessary to have stock in perfect health for breeding, and no matter how well you may have mated your mares, if they are out of health or badly fed on inferior diet, you can not expect to get a well-developed fœtus that will grow into a good muscular horse. I

also like a good pedigree for a sire, and may say no one has studied the question of pedigree in connection with breeding more closely than myself, and the more I see of breeding the more I am convinced that a good sire must have well-developed muscle all over, and the more even it is in all parts, the more even will his stock come. If he is *light* in muscular development his stock will come weak and light. If uneven in development, (large in one quarter, small in another), so his stock will be uneven and irregular. You can find horses that will get good, sound, selling horses, such as dealers will buy and pay the breeder well, but still they are not the first-class sires for riding and show horses. I am quite aware that very good judges of horses have totally different opinions from mine with respect to sires, but an opinion is worth nothing until it is put to a practical test, and then it must be judged by facts produced. I have had several stallions in my time, and they have got exactly the horses I expected, and I have not been deceived by any of them. The summing up is:

1. A good constitution, perfectly sound in wind, limb and eye-sight.
2. Well developed muscle in every limb, and of even calibre and texture, firm attachments, so that no one can say which is the heaviest or lightest limb.
3. Even and straight action, and when sent to walk and trot slowly down an incline, on hard macadamized road, stand straight behind him, and see if all the joints extend and flex evenly and straight or as near to this as you can possibly have it.
4. A good pedigree on both sides with a certain amount of in-breeding, to keep a family likeness in your produce.
5. A horse must be in perfect health during the season. If he should fall amiss from any cause whatever, stop him of his work, as he will not get good stock out of health.

TWO HUNDRED AND FIFTY DOLLARS is a high price to pay for a thoroughbred bull, but it is a cheap price for the improvement he will make in a herd of thirty cows.

THE NEGLECT OF STOCK in the spring entails heavy loss all through the summer; especially is this true with horses that have to carry the burden of spring work.

THE DAIRY.

A LARGE MILK RECORD.

Messrs. Smiths, Powell & Lamb, of Syracuse, N. Y., write us that up to May 1st the last twenty-five of their heifers had closed their two-year-old records, which commenced in the spring of 1885. The weight of each milking of every animal was carefully and accurately kept and testified to by the milkers in a manner satisfactory to the superintendent of advanced registry. The record of the entire lot averaged for the year 12,409 lbs. and 8 ozs.

This average, so far, surpasses all previous herd averages for heifers of same age, (two-year-old), that its publication will be of great interest to all breeders.

BETTER WAYS FOR BUTTER.

To go on in old ways is to march company with the counterfeiters of the ordinary dairy products, and those who elect to use tin pans, dash churns, sour cream, and who believe that washing butter spoils it, must fight in an unequal battle that promises no victory. Taking an observation from the vantage ground of the best buttermakers, we learn that cream must be separated from the milk sooner than by old methods; the ripening stage hastened, to obviate souring; it must be washed clean of buttermilk, instead of working it out, and packed at once, not balled, so that it may have a distinctive rosy aroma to give it a recognizable class of its own, (a flavor that no counterfeit can approach), and so a fancy market price.

But those who have always made butter with the ordinary apparatus often experience much difficulty in getting the "hang" of creameries and revolving churns, and pronounce them humbugs. This is a result of attempting to try to continue old customs with new inventions. One of the first troubles arises with the cream. On the open pan the cream is thick, and usually in warm weather is "ripe" enough to churn when it is taken off, and when set away the usual two days before churn-

ing, it gets very acid and sour. With the creamer and cold-setting, the cream is thin and perfectly sweet. To get good results from such cream, it must be ripened. This is accomplished best by keeping the cream warm, up to and even above the churning point, and by frequent stirring promote acidity, but different from the sour of the thicker or open-set cream.

This cream should be churned as soon as the first stages of mild acidity are apparent. With the revolving churns a more fluid condition is desirable, for the operation of churning with the more modern churn is a pouring, not a stirring performance. Trouble is often met with in churning, that the cream swells, the churn gets full, is a long time coming, etc. Usually this all proceeds from filling the churn so full that there is no thorough agitation of the cream, and it goes over and over with the churn. In using the revolving churn, it should be stopped after a few minutes, and the vent-plug removed to allow this acid air to escape, and it should be once or twice repeated. A revolving churn should never be filled more than three-eighths full. Then it gives the cream a pouring motion, or current, as the churn partially lifts and then drops it.

The cream may behave bad if too warm, quite as likely as if too cold; but as a rule ripe cream may be more profitably churned at 58 to 60 degrees than at 64 degrees, as the point of separation of the fluids and solids of ripe cream—other things being equal—is below that of acid cream. Two other things should also be borne in mind: that cream needs to be churned a little warmer in winter, when cows are wholly kept upon dry feed, than in summer, when grass is abundant. A high standard of quality in butter can only be maintained by having an occasional "fresh" cow—a remedy in many cases, where cream is turbulent about "coming." Often the whole difficulty lies in the care of the cream or milk, and is not chargeable to either churn or creamery. The whole process of butter-making is undergoing a change, which must be regarded, or else the maker see his "prime old-fashioned butter" sell at buttermine prices.—*J. G., Ohio, in Boston Post.*

Subscribe to the MARYLAND FARMER, only \$1.00 per year with a premium.

POULTRY HOUSE.**WHITE LEGHORNS.**

For the following cut and description of this popular breed, we are indebted to

in the estimation of all classes of people than most any other breed. To those unacquainted with this variety, we will say they are a beautiful fowl, having a pure white plumage, with clear yellow beaks and legs, large single combs, ear-lobes



BREEDING PEN OF WHITE LEGHORNS, BRED AND OWNED BY G. BOHL & CO., HIGHLAND PARK, ILL.

Messrs. G. Bohl & Co., of Highland Park, Ill.:

"This variety of thoroughbred poultry has attained more favor as egg-producers

white, tails large and carried quite erect.

They are a handsome, stylish and active bird, non-setters, and are universally known as the best layers in existence. Many pul-

lets begin laying at four months old. They are also a fine table fowl, and are excellent foragers, finding half their food when allowed to run. At about half the cost of keeping, they will yield more eggs than any other breed, making them the most profitable fowl for the farmer to keep, for in many eggs there is much money. They are easily raised, feather out young, and grow rapidly. Those wishing fowls for eggs chiefly, should try the White Leghorns for one season, and we believe they will ask for no better variety as egg-producers."

POULTRY.

The almost incredible fact that we import 16,000,000 eggs a year shows clearly that there is a wide field for poultry-raising in this country, and there can be little doubt that the business would be reasonably profitable. Very, very few make poultry-raising a *business* in the United States. Ninety-nine per cent. of the poultry is kept on farms where no particular effort is made to make the fowls profitable; their quarters being insufficient and foul, their food what they can get in summer and corn alone in winter, and the fowls are of no particular breed or else likely of just the breed least suited to the wants of the Farmer. On the farm food and rage cost so little that the business, when made a *business* and *rightly conducted*, would certainly afford a handsome profit—a considerably greater profit than cotton, or corn, or wheat now does. But it will be necessary to have pure-bred fowls and of a breed suited to the market, and that they have good quarters and judicious care. Yet the quarters cost little and any person of ordinary intelligence will soon be able to care for poultry properly.

Poultry-raising can be highly commended to our women—notoriously pale and sickly, and which doubtless proceeds in a large measure from their lack of outdoor exercise. They would find poultry-

raising as agreeable as housework, and from the profit could pay to hire help in the house and yet have a handsome sum left. They would gain in money by engaging in poultry-raising; but their gain in strength and health, and in turn the gain in health to their families, would be yet greater. Our pale, weak women become wives and mothers, and their ill-health is too often visited upon their children. The exercise taken in the poultry-yards would make stronger mothers and more healthy children.

Poultry-raising is a good occupation for children. It requires no work that the strength of a boy often or of a girl of twelve will not be equal to. Those who have been most successful in poultry-raising as a business are women and children; and while the children would make money, of more importance and value to them would be the habits of industry, economy and enterprise formed, in the formation of which there is no more powerful agent than the sense of possession. We hope to see poultry keeping receive much attention in the future, and trust that our women and children may largely engage in it.

PLOWS.

I want to live to see an improvement in plows. I do not think the surface soil, which is the richest, should be turned down to the bottom of the furrow, nor that a foot or fourteen incheswide should be turned over at once; but I think the "coming plow" should be made to slice the soil up in narrow furrows, three or four inches each, and so arranged as to stir and pulverize all the land thoroughly, as it slices it. I believe that such a plow could be made with which two horses could plow three or four acres a day and leave it in such a condition that once going over it with a roller or plank drag would put it in an excellent condition for the seed.—*Farmer's Review.*

Subscribe to the MARYLAND FARMER, \$1 per year with a premium.

HORTICULTURAL.

TURNIPS.

It is hardly necessary to say anything of the wisdom of growing root crops for cattle, sheep and swine. It is certain that if we fed more roots we would have healthier, thriftier and more profitable animals. Of the various root crops, none can be more economically grown than turnips. They should not be raised until July, as the turnip fly is apt to attack them earlier in the season. They may be sown after a crop of early potatoes, sweet corn or some other early maturing crop has been removed from the ground, and occupy land which otherwise would be productive of only weeds. As the turnip requires no cultivation, the crop usually can not be charged with either rent or cultivation; while to harvest it is easy and the seed is inexpensive. Six hundred bushels per acre has been grown, but half of this is a fair average crop.

The seed bed should be well prepared. It can not be got too fine. If possible sow just after a rain. This is much better than to sow just before a rain. If the sowing is made just before a rain, the rain is apt to make a crust that the little plants can not get through, and to start a crop of weeds that will choke the turnips. Do not sow after a rain until the ground can be nicely worked; and, then after the seed is sown run over the ground with a light drag. Then the plants will come up in two or three days and start at once into a vigorous growth. The soil need not be very rich, but it is better if it has had manure in the spring. The land should be clean, as on foul land the weeds will smother out the turnips. One pound of good seed is sufficient to sow an acre. Sow when there is no wind stirring. Even then you will have to exercise the greatest care to get the seed evenly distributed.

A mixture of boiled turnips and corn-meal—two parts of the former to one of the latter—is a most excellent feed for hogs. Hogs have been fattened on this mixture alone, and they could not have been beaten anywhere. Turnips are a good medicine as well as a good food.

THE PETUNIA.

We are indebted to Mr. James Vick, of Rochester, N. Y., the well-known seedsman and publisher of *Vick's Illustrated Monthly*, for the following cut and description:



PETUNIAS IN VARIETY.

"My experience with the petunia obliges me to rank it very high, as a handsome and useful flowering plant. It can be made to do duty in so many places, and always

with so much credit to itself, that I can well afford to say a few words in its favor.

The white petunia is so general a favorite, and so common everywhere, that it seems difficult to believe that twenty years ago its very existence was unknown among us. It is a native of South America, near the mouth of the Rio de la Plata, where it was discovered, and seeds of it were sent to Europe in 1823.

The purple petunia, *P. violacea*, was found in 1830, on the banks of the river Uruguay, whence seeds were sent to the Botanic Gardens, at Glasgow, and it bloomed in Great Britain for the first time in 1831.

Thus, these two species introduced the petunia into cultivation, and they are the progenitors which, with but little other intermixture, have produced the numerous race of hybrid varieties that now enrich our gardens. Hybridizing, careful selecting and re-crossing have wrought wonderful changes, giving flowers of different sizes, many shades of colors and great variety of markings, and also double flowers of endless variations."

To the Editor of the Maryland Farmer.

THE GOOSEBERRY-MILDEW.

A friend lately came to me complaining that his gooseberries had mildew and asking for the cause and remedy. He stated that he put out the bushes some years ago, and that the first two years they bore, they produced nice berries. Since then the berries would show "rust" when half-size and this would increase as they grew, until they became quite black on one side and unfit for use. He was at a loss to know what to do. Did he cultivate the ground around the bushes? No. They were in a nice sod then? Yes. Did he remove the old canes each year? No. Did he manure the ground about them? No. He allowed them "just to grow," then? Yes. And he expected them to give nice fruit, when they received such treatment? Yes.

My friend made the mistake that so many make in growing gooseberries. The gooseberry is really an excellent fruit, but its excellence is brought out by only the same treatment that brings out the good

points of other fruits. Gooseberries should no more be neglected than pears, plums, grapes, strawberries or raspberries. Neglect of them reduces the size of the fruit—the same effect that it has in the case of other fruits—and is almost sure to lead to mildew. To plant the bushes along garden fences, where they grow up with grass, and neither cultivate nor care for them, is not the proper way to grow gooseberries.

Mildew is the only considerable disease that attacks the gooseberry. And so long as the bushes are kept vigorously growing by the cultivation and manuring of the ground about them, and are frequently and judiciously pruned, to give a constant succession of strong shoots, there will be no trouble from mildew. Herein lies the whole secret of freedom from mildew and the production of large berries.

When you set out a young gooseberry bush, cut off all the buds or blossoms below the surface of the ground, that there may be a clear stem. While English growers recommend that this stem be a foot high before branching, in our hot, dry climate it is better to have the branches near the ground. The fruit is borne on shoots two or more years old, and it is important that for this purpose a succession of strong shoots be maintained. This is accomplished by cutting out the old bearing-spurs when they become too thick and enfeebled, and allowing the new shoots to take their place. Cultivation increases the growth of the bearing wood, and is essential to the profitable growing of this much abused and usually underrated fruit.

Ill,

S. M. J.

A WRITER in the New England *Homestead* well says there are millions of dollars' worth of good fertilizers lying dormant under barn floors. Where there is no basement, it will pay to take up the floor of the stable and dig up the soil and fill in with fresh earth.

POTATO CULTURE.

At a meeting of the Massachusetts State Board of Agriculture, Edmund Hersey gave the results of certain investigation as follows: 1. The shape of the potato cannot be changed by the continued selection of any particular form of the seed planted. 2. The crop may be increased by selecting for seed, healthy, well-kept potatoes, and diminished by selecting for seed diseased and poorly-kept potatoes. 3. Hard potatoes that have sprouted but little are better than those that are soft or have long sprouts. 4. Long continued planting of any variety gradually changes its character, often improving it during the first twenty years after it comes from the seed; it then frequently begins to lose its good qualities and to become more susceptible to disease. 5. Large crops are only obtainable on rich soils well prepared by being thoroughly pulverized. In ordinary field culture the size of the potato should be sufficient to give the young plant a vigorous start; while pieces weighing from one to two ounces are not too large. 6. Neither the size nor the form of the potato for seed is of so much consequence as its healthy condition or its vital powers. 7. No rule can be laid down in regard to the quantity of seed per acre, the amount of manure or the particular method of cultivation that will apply to all farms. 8. One and a half dozen experiments are not sufficient to establish any particular facts. It is only by numerous experiments covering a long period of time, and tried on different farms, that it is safe to settle down to any results as undeniable facts. 9. While the successful cultivator may gather from others much valuable information to assist him in his investigation for the details, if he would produce large crops, he must rely principally upon the experience he has obtained by working on his own farm.—*New England Farmer*.

FARMERS raising colts from mares intended to do work on the farm, should either have the colts come in the fall, or very early in the spring, so as not to interfere with the routine work on the farm in the busy season.

THE IMPORTANCE OF BEE-KEEPING.

At Aurora, Illinois, is located the government apicultural station, which was established a little more than a year ago, in charge of the United States Department of Agriculture. The purpose of this commission is to make experiments and to further the apicultural industry. Mr. N. W. McLain, the commissioner, is a thoroughly practical bee-keeper. The following we extract from a late official report, and published in the *American Bee Journal*:

"An idea of the present importance of this industry can be gained from the following figures, taken from the reports of the statistician of the Northwestern Bee-Keepers' Society for 1884. He says: "According to conservative estimates, we have now a total of three millions of colonies of bees, which annually yield 120,000,000 pounds of honey. The value of the annual product, at an average of 15 cents per pound, would be \$18,000,000."

The estimated annual product ranges from \$15,000,000 to \$20,000,000, and the annual product of wax is about \$1,000,000 in value. Not more than eight or ten per cent. of those favorably situated for the cultivation of bees are engaged in the pursuit. If even one-half of those favorably situated were so engaged, the annual product would not fall below \$75,000,000 or \$80,000,000 in value. The United States imported 2,400,000,000 pounds of sugar, at a cost of \$94,923,500, in the year of 1884, and a large percentage of these imports do not bring with them a character above suspicion. Instead of being importers we should be exporters of sweets, with the balance largely in our favor. Instead of paying their money for the vile adulterations of foreign importations, our agriculturists should gather the pure and wholesome nectar annually wasted in their own fields."

CANADA THISTLES are the most easily exterminated weed pests we have. Cut at any time in hot weather, and kerosene poured on the roots will kill them.

THE VANSVILLE FARMERS' CLUB.

The club met at the residence of Mr. Luther Brashears; present ten members.

The club was called to order and the inspection committee then reported through Mr. Steiger, as follows:

Your committee, having made as thorough inspection of Mr. Brashears' farm as possible, find themselves at a loss to determine which of the several crops deserve the greatest praise. We find the hay crop looking remarkably well, and when we take into consideration the fact that he has sowed no clover for the past fifteen years, the stand is wonderful. His horse power and bailing room are convenient, and Mr. Brashears finds from experience that bailing his hay pays. The corn looks well, and will not need replanting. Oats very fine. In the experiment with carib on oats, Mr. B. expresses himself as well satisfied with the result. We next inspected the growing wheat, which is very fine, and especially as for a crop put in without fertilizer of any sort. Mr. Brashears called our attention to an old, wornout field, on part of which he had spread straw. The benefit was marked; the portion upon which the straw was spread could be easily told by the thick mat of clover, while on the other portion, but little clover was found. We saw a fine Buckskin Jim colt. Among the items of interest to which our attention was called was a mower that has been in use for twenty-four years, and in that time has not cost five dollars for repairs, and is yet doing its work well. Hogs, cattle and horses looking well. The buildings, shop, etc., are in their usual neat condition. The corn house is still well filled with a fine quality of white corn. The garden is in prime condition, and very thrifty. We think Mr. Brashears' milk cellar is very convenient, and it having cost so little, we would recommend the club to take pattern from it.

Rev. Luther Brashears here read an interesting essay on the subject of "Hay Making." We would gladly give it entire to our readers, but the want of space prevents. The following discussion followed the essay:

In the general discussion upon the essay, Mr. Steiger says he has had but little experience with hay. He has pursued the following plan with what hay he has made: He commences cutting about eleven o'clock; the next morning when dew is off, rakes and cocks; hauls in the the following day. Makes small cocks always, and uses salt, half peck to two-horse load.

Prof. J. D. Warfield says he has cut in the morning and put it away in the afternoon. Some persons regard salt as no benefit, but he thinks it a necessity, if the hay be put away green. If wet season, hay requires longer time to cure.

Mr. Emack does not cut till afternoon. Rakes and hauls in the next morning, after dew is off. Gusts generally occur in the afternoon, and if one should happen, doesn't spoil the hay.

The president makes a great deal of hay, it being his principal crop. When he commences, he never stops his machine unless forced to do so by rain. Never cuts, however, until dew is off. In two hours after cutting, starts his tedder, and in two hours more his rake. He then commences to haul in at once, thus his grass does not get more than four hours sun. He cuts clover when half the heads are dead, and uses salt. He believes in the curative power of salt, and even if it does not prevent the moulding, it will cause the hay to be eaten more rapidly by stock, and they will eat it cleaner.—*The Quill*.

We would give the discussion entire, but space will not permit us.

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Grace's Quarter Sold.

Col. Wilmot Johnson and wife have sold to Judge W. A. Fisher, Gen. John Gill, Charles D. Fisher and Howard Munnickhuysen, four-fifths of three tracts of land on the Gunpowder, 12th district, Baltimore county, Md., viz: "Grace's Quarter," containing 410 acres; "Daniel Town," containing 50 acres, and another tract of fifty acres, for the sum of \$48,000. „Grace's Quarter" has fine improvements upon it, and is known as one of the best ducking shores in the country.

To the Editor of the Maryland Farmer.

CUTTING AND CURING CLOVER.

Clover is an excellent forage crop whether fed green or in its cured state for hay. Its value as hay depends upon its being well cured, and in such manner as to retain the leaves upon the stalks. If this is not attended to and the leaves are lost, as is sometimes the case, leaving only the bare stalk, with, possibly the blossom, it makes a fodder of very little value and of very poor quality. The value of clover hay, like that of grasses, depends considerably upon the time it is cut, which should be before it becomes too mature; the nearer clover approaches absolute maturity, after coming to blossom, its value for feeding purposes diminishes. The proper time for cutting is when it is in full blossom with a tendency for the blossoms to begin to turn. Select a good day for the cutting, and do the work when the clover is free from dew or external moisture. We prefer to have clover cut with the scythe, as it can be more easily handled in the swarth than when scattered over the surface as it is left after the mower. Very many advocate the placing in small heaps after the clover becomes well cured and then letting it stand for a day or two, turning over and spreading a little previous to carting. Under some circumstances this might be advisable, but ordinarily allowing to stand for a few days incurs a risk of being wet by showers which injures it much more than is the case with fine hay which will settle together and shed rain moderately well.

When cut and allowed to remain in the swarth until nearly night the upper portion will usually become sufficiently cured; then turn the swarths bottom side up, bringing the green portion to the exposure of the dew, and little or no injury is done, and by morning the next day the hay being well wetted and thoroughly heated, may safely be carted, which is done by fastening the swarths together and pitching directly to the cart. In this way there occurs a minimum loss of the leaves from the stalks. A great trouble in curing any kind of hay lies in the attempt to cure too much and omitting carting until the dew begins to fall, when greater injury is done than would result in carting a trifle green.

Hay of superior quality may be almost ruined by delaying the carting until an unseasonable hour. Hay should be put in a mow hot, and while in that condition the process of curing, if a little incomplete, will proceed and no injury will result; but if the hay is worked upon or left a longer time to cure, even if that end is accomplished, but carting delayed until the dew begins to fall, so that the hay becomes charged with external moisture, such hay will come from the mow in a musty condition, and yet the man that put it there wonder what makes his hay so musty when it was so well cured in the field. Judgment must be employed in the cutting and curing of hay.

WM. H. YEOMANS.

Sale of Stock by E. B. Emory.

As the pioneer in this enterprise in Maryland, we feel that we are only doing justice by placing the name at the head of this notice of his fifth annual sale. We need many such live, go-ahead men in our State to make our resources known to the country at large; and the patronage of our people should insure to Mr. Emory a profitable business as well as an appreciative sense of the good he is accomplishing for his State.

"The fifth annual sale of high-bred trotting stock and cattle, the property of E. B. Emory, took place at Poplar Grove Stock Farm on Thursday. The young horses were of the best strains of the country, and the cattle offered consisted of thoroughbred Shorthorns and Jerseys. A number of prominent stock raisers and lovers of high-bred cattle were present from a distance, among them Messrs. J. E. Thomas, B. F. Parlett, Jr., Johnson and Keineir, of Baltimore; Mr. Dangerfield, of Alexandria, Va.; G. A. T. Snauffer, of Frederick, and Dr. Windolph, of Belair, Md. B. Emory, Jr., acted as clerk and James H. Costin was auctioneer."

Subscribe to the MARYLAND FARMER, with a premium, only \$1.00 per year.

NURSERYMEN AND FLORISTS CONVENTION.

Pursuance to a call for the National Convention of Nurserymen and Florists, a large gathering of prominent business men in these pursuits was held at the Agricultural Department, in Washington, June 16, 17 and 18th. We were pleased to see such a large number of representative men present, and to listen to the addresses and discussions, which were of the very greatest interest not only to the professionals, but to the public at large.

We were somewhat surprised, however, to observe so few members from New England and the Atlantic States, as this section of the country is largely interested in these branches of trade, and we would naturally expect to find them fully represented in such a gathering.

Resolutions endorsing Commissioner Colman were adopted. The members called in a body on the President. In reply to an address, the President said he was very much gratified to meet the lovers of trees, and hoped that all their efforts would be successful.

Lutherville Seminary.

We enjoyed a visit to this institution on the day of its commencement, and in company with Prof. Turner we had a general view of the building, its accommodations, and the facilities the scholars enjoy there for a thorough education.

"This institution is located at Lutherville, a beautiful village in Baltimore county, Md., ten miles north of Baltimore city, on the line of the Northern Central Railway, in a high, healthy and beautiful section of country. Its mild climate, pure air, excellent water and the elevated, refined and moral tone of society, make it a most desirable location for an Institution of learning."

The Hall Duplex Steam Pump.

The invention of the Hall duplex steam pump is now generally admitted by experts in pumping machinery to mark a decisive improvement in the mechanism of the steam end of direct-acting pumps of the duplex type. The admirable qualities which it exhibits, and which are chiefly due to its simplicity of construction, noiseless operation, positive action under any pressures, absence of working joints, reinforced by great compactness, durability in service, and high duty, are due to the characterizing feature of this pump—that is, the valve mechanism. The simplicity and certainty of action of this system demonstrates the inexpediency, if not the positive disadvantage of all forms of auxiliary mechanical devices and attachments to operate the steam valves of pumps of the duplex type.

Every machine is thoroughly tested, and sold under a full guarantee to perform the duty required with ease and certainty of action.

Samuel R. Waite & Co., Baltimore, Md., are the agents for the sale of "Hall duplex pumps," and will furnish illustrated catalogues to any who may be interested. See advertisement in this Number.

GRANGE PICNIC.

We had the pleasure of attending a basket picnic, held June 1st in a beautiful grove, near Lutherville, on the Northern Central Railroad. The day was all that could be desired for such a gathering, and quite a number of farmers with their wives and daughters were assembled to enjoy the occasion. We observed a few agricultural implements on the ground, but we heard no discussion of agricultural subjects, such as make such meetings most valuable to Farmers. The young people seemed to enjoy fully the music and dancing, and the day was one of great social enjoyment.

Dr. Welsh favored those present with an excellent address, from which we make the following extract:

"I love this Southern land. [Applause.] The greatest curse that slavery left the South as a heritage is the low regard many of the Southern people have for labor. Manual and physical labor is the source of individual wealth and prosperity. Peabody, the world renowned, whose death two nations mourned, began life as an humble bundle-carrier. Johns Hopkins, the greatest financier the world ever produced, lived and worked upon a farm in his youth. I assume as a fact that we have no cause to fear losing refinement by any work which belongs to us as farmers. [Applause.] We should not fear to soil our hands. [Applause.] The hand must not only be ready to work, but the mind and intellect must be employed. Agriculture is a great science. A spirit of earnestness must go into everything in order to secure success. Agricultural pursuits comprise a field for the display of this genuine earnestness. If we have fallen behind, the fault is with ourselves."

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**THE "MARYLAND FARMER" IS
PRONOUNCED TO BE THE BEST
AGRICULTURAL JOURNAL
IN ENGLAND AND
AMERICA.**

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It is always gratifying to receive pleasant and appreciative words from our exchanges, and we fully reciprocate all the kindness which has been expressed towards us. In our own country the position and work of the MARYLAND FARMER have long been recognized as among the very best agricultural journals, and its influence has been correspondingly great as to all the subjects that have agitated the community. Among our foreign exchanges, we find similar words of good cheer and encouragement, showing that the MARYLAND FARMER stands as high abroad as in our own land. The *Covent Garden Gazette*, published in London, Eng., in its issue of June 12th, says:

"The June issue of the *Maryland Farmer* to hand this week should make the proprietors of our English agricul-

tural papers blush. For artistic get-up and excellent contents we have not its equal in this country. Its only defect is, a superabundance (55 pages) of advertisements."

Among the latest notices, comes one from the *Phoenix Agriculturist*, of Marietta, Ga.:

"One of the best agricultural magazines in America is the *Maryland Farmer*, published at Baltimore, Md. It is ably conducted and handsomely printed. The June number of this Journal has been received and it is apparent that improvement is made with every issue, though at present it approaches very near to perfection in the art of printing."

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To the Editor of the Maryland Farmer.

The Bull Frog in a New Character.

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This creature has been recognized heretofore as destructive to fish spawn and insects, but I have never heard of him extending his depredations to the chicken yard as he has done recently with me. A very large one was found with a young chicken half in his mouth and the old hen flying around greatly excited and not at all equal to the occasion. She did not know what to do about it save make a fuss which ended happily in the rescue of her chick. The chicken yard is one hundred yards from a fish pond containing three-quarters of an acre and on rather a steep ascent, thirty feet above the pond. D. A.

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MARLBORO GAZETTE celebrated its fiftieth birthday, June 30th, with a neat and new vignette and dress. Having made the acquaintance of the founder of this journal when it was in its infancy, we have been familiar with it for the last forty-five years, and are fully persuaded of the truth of all the statements made by its present publisher in his semi-centennial editorial. Talent and enterprise are characteristics of the *Gazettee*, and we rejoice to learn of its prosperity and hope its present editor, son of the founder, may live to establish its full centennial, fifty years hence.

A LIBERAL OFFER.

Five Thousand Dollars to any Charitable Institution,

IF IT CANNOT BE DONE AS IT IS STATED.

Rochester, N. Y., Union and Advertiser.

Friends of Ex-President Arthur are very much disquieted.

Of course he is not going to die! He is in the hands of a very particular physician.

His doctor does not call it Bright's Disease! No, it is stomach disorder that he is suffering from now, and every few hours he takes a cold, and from time to time many other symptoms are developed. These symptoms the public should know are really secondary to Bright's disease.

His physicians say that everything that medical skill can do for him is being done.

This is not so!

This case is a prominent one because the general is an ex-president; and yet there are thousands of farmers quietly dying, in their farm houses, of secondary symptoms of Bright's Disease, called by every other conceivable name; thousands of workmen, likewise dying, leaving helpless families; hundreds of thousands in all walks of life who have sickened, and are likewise dying, helpless victims of powerless physicians.

Eight years ago a very well known gentleman was about to enter upon large commercial transactions. His medical adviser quietly dropped into his office one day and told his confidential clerk that he would be dead in three months, and that he ought to settle up his business affairs at once!

That man is alive and well to-day, yet he was given up as incurable with the same disease that is killing General Arthur!

Our reporter met this gentleman yesterday and in conversation about the General's case, he said:

"I will give \$5,000 to any charitable institution in the State of New York, to be designated by the editor of the New York *World*, the editor of the Buffalo *News* and W. E. Kisselburgh of the Troy *Times*, if Warner's safe cure (taken according to my directions) which cured

"me eight years ago, cannot cure General Chester A. Arthur of Bright's disease from which he is suffering."

"Now I want you to understand," he said, "that we do not profess to make new kidneys, but we do know from personal experience and from the experience of many thousands of similar cases, that we can stop the consumption of the kidneys. Many a man has gone through life with one kidney without inconvenience. Thousands of people have lived a majority of their life with one lung. They did not have a new lung made. We do not make new kidneys, but if the kidney is not consumed too much we can stop disease and prolong life if taken in time."

This offer comes from H. H. Warner, proprietor of Warner's safe cure, of this city.

Mr. Warner also said, "My dear sir, there are governors, senators, presidential candidates, members of congress, prominent men and women all over the country whom I personally know have been cured of disease, such as General Arthur suffers from, by our Warner's safe cure, but owing to the circles in which they move they do not care to give public testimonial to the fact."

Mr. Warner is interested in General Arthur's case because he is personally acquainted with him, and he says that it is a shame that any man should be allowed to die under the operation of old-fashioned, powerful cathartics, which have no curative effects, rather than that a modern, conceded specific for kidney disease whose worth is acknowledged world-wide, should save him.

"If you doubt the efficacy of Warner's safe cure," say the proprietors, "ask your friends and neighbors about it. This is asking but little. They can tell you all you want to know."

"We have kept a standing offer before the public for four years," says Mr. Warner, "that we will give \$5,000 to any person who can successfully dispute the genuineness, so far as we know, of the testimonials we publish, and none have done it."

Were General Arthur a poor man, unable to be left "in the hands of his physician," he would use that great remedy, as

many thousands of others have done, and get well. How absurd, then, for people to say that everything that can be done is being done for the ex-president, when the one successful remedy in the world that has cured, or that can cure a case like his, has not been used by them.

Montgomery County Fair.

The spring meeting of the Montgomery county fair, was very successful. The exhibits were confined to machinery and flowers. A great many country people and many from Washington were present. President W. E. Muncaster made the opening address.

Hon. Ed. Stake, of Hagerstown, was the orator of the day, and made a clear, practical and forcible address, advocating a higher education of the Farmer in practical chemistry and scientific farming. He touched upon the many enemies of the Farmer, insects, droughts and floods, advising the best means to overcome or avert the disasters.

The floral display was choice and attractive.

The following premiums were awarded: For the best display of pansies, Miss Carrie Janney; second best, Miss Eliza Farquhar. Best general display, Mrs. W. E. Muncaster; second, Mrs. H. C. Hallowell; third, Mrs. Rose Stabler; fourth, Mrs. W. P. Miller.

Dr. Henrick's Horse and Cattle Powders.

These powders are said to be from a prescription of an eminent German veterinary surgeon, member of one of the principal royal colleges of veterinary surgery. They are especially useful in cases of influenza, coughs, colds, or lung fever, in fact will help in most diseases affecting horses and cattle. They have stood the test of practical use in this country for over twenty years and given great satisfaction during that long period. Their advertisement will be found in this Number of the FARMER.

A Novel Fire Extinguisher.

The first five minutes after a fire breaks out, better results towards extinguishing it are obtained than for hours afterwards. The great trouble with the public generally, is that they depend entirely on the fire department, and herein lies the mistake.

We were shown a very complete extinguisher, manufactured by the Perfect Hand Fire Extinguisher Company, of this city, whose office and works are located at No. 114 S. Charles street, which is in the form of a large syringe filled with chemical fluid and from the practical tests we think it to be decidedly the most common sense invention of the age. This syringe is always ready for use, and can be used by any one, costs but \$1.25. The company are now prepared to supply the trade in quantities to suit, and we suggest correspondence with them by all property owners. They will take pleasure in forwarding explanatory circulars, etc.

An Old and Reliable Seed House.

It has been fifty-eight years since the name of Buist was first known to the gardening world of this country. From a very humble beginning, combined with the strict Scotch integrity, the largest seed growing establishment in this country has sprung. The great reputation that Buist's seeds have attained for their reliability, is attributed to the personal care taken in their selection and growth.

IN regard to selling eggs, it is the belief of many poultryman that they will soon be sold by weight. The range in weight of eggs is greater than is generally supposed. We once tested a dozen large eggs and found them to weigh twenty-four ounces, while a dozen of small ones weighed only fifteen ounces. The average weight of eggs is about twenty-one or twenty-two ounces a dozen.—*Ex.*

RULES FOR EATING FRUIT.

It is generally conceded by medical authorities that fruit properly eaten is beneficial to the human system for the medicinal qualities that it possesses. An exchange sums up the matter in a strong light in this wise: "Fresh, ripe, perfect raw fruit is safe and healthful at all seasons of the year, and amid the ravages of disease, whether epidemic, endemic or sporadic, special or local. Under proper restrictions as to quantity, fruit as above named will cure diarrhœa, and in removing a cold fever or any other disease where treatment requires the bowels to be kept freely open, an effect which fresh, ripe fruit is acknowledged to have."

It is the improper use of fruit that has in too many instances led to the belief in its unwholesomeness, the same as with some garden vegetables. In the first place fruit should not be eaten unless it is ripe, fresh and in perfect condition. In the second place it should be eaten with moderation; a gluttonous use of fruit might well be expected to be attended with ill effects. Fruit should be eaten alone without water or other fluid. Fruit that is too acid may be accompanied by sugar so as to remove too great acidity. By some it is recommended not to eat fruit later than 4 o'clock in the afternoon, a suggestion that we are unable to see the force of; if fruit possesses the medicinal qualities claimed for it and is of that character that is supposed to be harmless, it is difficult to see why it might not be taken into the system as well at one period of the day as another if it is done with a moderation. Fruit is one of God's best blessings to the human.—*Germantown Telegraph*.

THE striped mellow bug, according to Fred. Grundy in the *Weekly Press*, may be driven away and kept away by sprinkling the plants with water with which a liberal quantity of fresh cow manure has been stirred. Use a whisk broom or something of the kind and don't be afraid of applying too much. Repeat after every shower.

CUT the clover before the blossoms begin to fade.

DOMESTIC RECIPES.

TABLE MEETINGS.—When the family harmony is at its best, how delightful are the table meetings, and what pleasant *bon mots* are exchanged there! Sidney Smith called a fine dinner party "the perfection of modern civilization;" and Johnson says, "we meet at table to eat and drink, and to promote kindness;" and elsewhere he said, "wherever the dinner is ill got there is poverty, or there is avarice, or there is stupidity; in short, the family is somehow grossly wrong."

SALLY LUNN.—One pint of sweet milk, warmed. Four tablespoonfuls of butter melted in the milk. Two eggs and half a cup of sugar beaten well together and stirred into the milk. One small teaspoonful of salt and a small cake of yeast. Flour enough to make a batter a little stiffer than for muffins. Butter the pan thoroughly, and let it rise about four hours, or until very light and bake in good oven. When baked split it and butter while hot and then put together again. It is better eaten the same day it is made, but can be heated a second time. Do not split and butter until ready for the table.

MUFFINS are acceptable to all who relish warm breads. The recipe given below was obtained from one of the most noted hotel cooks in the country, at considerable trouble and outlay: Into one full quart of flour rub two large tablespoonfuls of butter, and three of sugar; also two teaspoonfuls of salt, and three of baking powder. Then, in a bowl beat lightly the yolks of three eggs, and dissolve in one cup of milk. Stir this into the other ingredients, and add enough more milk to make the batter of the consistency of pound cake. Beat thoroughly, and lastly add the white of the three eggs beaten to a stiff froth. This amount makes twenty-four muffins. Bake half an hour, in a quick oven. By using one-third yellow, fine cornmeal and two-thirds flour, you have corn muffins. Either kind is equally good cold.

THE *Farm Journal* says that the animals must drink in hot weather and must take what they can get. But they hate nasty water as much as we do.

Books, Catalogues, Publications, &c.

WE have received a pamphlet published by the American Jersey Cattle Club, and giving "Numerous facts about Jersey cattle." Office of the club, No. 1 Broadway. New York.

THE FARMER, St. Paul, Minn., comes to us well filled with interesting matter on all farm topics. It is an excellently edited journal of agriculture, and we wish it abundant success.

AMONG the interesting documents from the Department of Agriculture, we are in receipt of New Series, Report No. 30. It is made particularly useful by its accounts of "The world's supply of wheat" and the classification of "freight rates."

WE have received a copy of *New Farm*, a thirty-two page monthly, published at Embla, Baltimore county, Md. It is well printed and makes a readable magazine. We welcome it to our exchange list. The price is \$1.00 per year, and subscribers will get the full value of their money from its pages.

BIENNIAL REPORT of the Commissioner of Agriculture of Louisiana. This is one of the most extensive reports that comes to our table. We would be glad to make very full extracts from it, but are forced to defer it to some future day. We shall be able, however, to use some of its statistics to advantage.

CLEVER Children's Book received from the publishers, entitled "Some Funny Things Said by Children," which contains over five hundred humorous and clever things said by little people, will be sent by mail, postpaid, on receipt of twelve cents, by J. S. Ogilvie & Co., Publishers, 31 Rose street, New York.

HERD BOOK of the Maine State Jersey Cattle Association. This is the fourth volume, gotten up in good style, well bound and with the previous volumes giving the pedigree of two thousand and eighty-eight prime Jersey cattle. The association has at present 217 members, and its officers, well-known to us personally, are men of sterling worth, in whose hands the interests of the association are safe. Its place of business is Winthrop, Maine.

ANNUAL REPORT of the Regents of the Smithsonian has been received. It is a voluminous document, and we must be allowed leisure to examine it. We see at once that it covers a very broad field of research, and will be a source of enjoyment to the class of thought-

ful scientists who revel in such statistics and discoveries. The learned and intellectual world generally will welcome it. When will such facts become popular reading?

ONE of the most interesting publications from the Agricultural Department is the "Descriptive Catalogue of Manufactures from Native Woods," which we have received and examined. It grew out of the exhibit made by the Agricultural Department at the World's Industrial and Cotton Exposition at New Orleans. It will well repay any one who takes an interest in the general progress of the arts to give it an attentive reading.

WE would be glad to give an extended notice of the method of handling and educating vicious horses, as set forth in the very well printed and written volume of Oscar R. Gleason, published by the O. Judd Co., N. Y., and for sale by Cushings & Bailey, Baltimore. We may hereafter refer to his method. Kindness should be the ruling principle with the training of all animals. It is a 12mo. of 205 pages, price \$1.00, and he who purchases will get well paid by its teachings.

A PURITAN COLONY IN MARYLAND.—One of the series of study in history of the Johns Hopkins' University. We have read with much interest the struggles of the Puritan colony and the war between Lord Baltimore's governors and the Puritan council. Particularly were we pleased with the clear account of the combat between Governor Stone's brigade and half as many Puritans, and the complete defeat of the former. The subsequent struggles of the Puritans tending to free democratic principles are worthy of a special study.

SIXTH ANNUAL REPORT of the "Women's Silk Culture Association of the United States" has come to hand. We are glad to see that Congress has made a liberal appropriation to the aid of this work, and from the account of past expenditures, we are well satisfied that it will be productive of great good. We have taken a great interest in silk culture as a branch of work which would enlarge the sphere of women in the lighter labors of life, opening to her a better prospect of remunerative industry than most country pursuits. We see occasionally some complaints of the laborious nature of collecting the food for the silkworms, but this in time will be obviated, and we still have faith that it will be both light and profitable labor for women.